

STATEMENT OF BASIS

as required by LAC 33:IX.3109 for LPDES facilities where a fact sheet is not required under LAC 33:IX.3311, for draft **Louisiana Pollutant Discharge Elimination System Permit No. LA0060275; AI 18974; PER20060001** to discharge to waters of the **State of Louisiana** as per LAC 33:IX.2311.

The **permitting authority** for the Louisiana Pollutant Discharge Elimination System (LPDES) is:

Louisiana Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

I. THE APPLICANT IS: Louisiana Department of Public Safety and Corrections
Washington Correctional Institute Wastewater Treatment Facility
27268 Hwy. 21
Angie, LA 70426

II. PREPARED BY: Ronda Burtch

DATE PREPARED: August 22, 2007

III. PERMIT ACTION: reissue LPDES permit LA0060275; AI 18974; PER20060001

LPDES application received: February 21, 2006

LPDES permit issued: September 1, 2003

LPDES permit expired: August 31, 2006

IV. FACILITY INFORMATION:

A. The application is for the discharge of treated sanitary wastewater from a publicly owned treatment works serving the Washington Correctional Institute.

B. The permit application does not indicate the receipt of industrial wastewater.

C. The facility is located at 27268 Hwy. 21 in Angie, Washington Parish.

D. The first treatment facility consists of a package treatment plant with contact stabilization process, with chlorine contact chamber, and an aerobic digester. The second treatment plant is an activated sludge plant with an aerobic digester and chlorine contact chamber.

E. Outfall 001

Discharge Location: Latitude 30° 55' 02" North
Longitude 89° 49' 13" West

Description: treated sanitary wastewater

Design Capacity: 0.250 MGD

Type of Flow Measurement which the facility is currently using:

Combination Totalizing Meter / Continuous Recorder

Louisiana Department of Public Safety and Corrections
 Washington Correctional Institute Wastewater Treatment Facility
LA0060275; AI 18974; PER20060001
 Page 2

V. RECEIVING WATERS:

The discharge is into an unnamed ditch, thence into Jones Creek, thence into Mayfield Creek, thence into the Pearl River in segment 090101 of the Pearl River Basin. This segment is listed on the 303(d) list of impaired waterbodies.

The designated uses and degree of support for Segment 090101 of the Pearl River Basin are as indicated in the table below^{1/}:

Overall Degree of Support for Segment 090101	Degree of Support of Each Use						
	Primary Contact Recreation	Secondary Contact Recreation	Propagation of Fish & Wildlife	Outstanding Natural Resource Water	Drinking Water Supply	Shell fish Propagation	Agriculture
	Not Supported	Full	Not Supported	N/A	N/A	N/A	N/A

^{1/}The designated uses and degree of support for Segment 090101 of the Pearl River Basin are as indicated in LAC 33:IX.1123.C.3, Table (3) and the 2004 Water Quality Management Plan, Water Quality Inventory Integrated Report, Appendix A, respectively.

VI. ENDANGERED SPECIES:

The receiving waterbody, Subsegment 090101 of the Pearl River Basin, has been identified by the U.S. Fish and Wildlife Service (FWLS) as habitat for the Ringed map turtle and the Gulf sturgeon, which is listed federally as a threatened species. However, this discharge is not listed in Section II.2 of the Implementation Strategy as requiring consultation with the U. S. Fish and Wildlife Service (FWS). Therefore, in accordance with the Memorandum of Understanding between the LDEQ and the FWS, no further informal (Section 7, Endangered Species Act) consultation is required. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat.

VII. HISTORIC SITES:

The discharge is from an existing facility location, which does not include an expansion beyond the existing perimeter. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the 'Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits' no consultation with the Louisiana State Historic Preservation Officer is required.

VIII. PUBLIC NOTICE:

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit modification and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Louisiana Department of Public Safety and Corrections
Washington Correctional Institute Wastewater Treatment Facility
LA0060275; AI 18974; PER20060001
Page 3

Public notice published in:

Local newspaper of general circulation

Office of Environmental Services Public Notice Mailing List

For additional information, contact:

Ms. Ronda Burch
Permits Division
Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

IX. PROPOSED PERMIT LIMITS:

Subsegment 090101, Pearl River - Mississippi State Line to Pearl River Navigation Canal, is listed on LDEQ's Final 2004 303(d) List as impaired for pathogen indicators and mercury. To date no TMDLs have been completed for this waterbody. A reopener clause will be established in the permit to allow for the requirement of more stringent effluent limitations and requirements as imposed by a TMDL. Until completion of TMDLs for the Pearl River Basin, those suspected causes for impairment which are not directly attributed to the sanitary wastewater point source category have been eliminated in the formulation of effluent limitations and other requirements of this permit. Additionally, suspected causes of impairment which could be attributed to pollutants which were not determined to be discharged at a level which would cause, have the reasonable potential to cause or contribute to an excursion above any present state water quality standard were also eliminated.

To protect the receiving waterbody against high levels of pathogenic organisms, fecal coliform limitations will remain as previously permitted.

The Mercury impairment listed for subsegment 090101 applies only to those waterbodies specifically identified in LDEQ's Final 2004 Integrated Report, and not to the entire subsegment unless so specified. Because the discharge from this facility is not directly into the Pearl River, Mercury will not be addressed in permit development.

Louisiana Department of Public Safety and Corrections
 Washington Correctional Institute Wastewater Treatment Facility
LA0060275; AI 18974; PER20060001
 Page 4

Final Effluent Limits:

OUTFALL 001

Final limits shall become effective on the effective date of the permit and expire on the expiration date of the permit.

Effluent Characteristic	Monthly Avg. (lbs./day)	Monthly Avg.	Weekly Avg.	Basis
BOD ₅	21	10 mg/l	15 mg/l	Limits are set in accordance with the Statewide Sanitary Effluent Limitations Policy (SSELP) for facilities of this treatment type and size and in accordance with the previous permit.
TSS	31	15 mg/l	23 mg/l	TSS effluent limitations shall be based on a case-by-case evaluation of the treatment technology being utilized at a facility. Therefore, a Technology Based Limit has been established through Best Professional Judgement for the type of treatment technology utilized at this facility and in accordance with the previous permit.

- A water quality screen was run using TRC data reported by the facility. Based on the Geomean Average of the TRC data reported, the water quality screen indicated that no limit was necessary for TRC. Therefore, the TRC limit that was present in the previous permit has been removed.

Other Effluent Limitations:

1) Fecal Coliform

The discharge from this facility is into a water body which has a designated use of Primary Contact Recreation. According to LAC 33:IX.1113.C.5.b.i, the fecal coliform standards for this water body are 200/100 ml and 400/100 ml. Therefore, the limits of 200/100 ml (Monthly Average) and 400/100 ml (Weekly Average) are proposed as Fecal Coliform limits in the permit. These limits are being proposed through Best Professional Judgement in order to ensure that the water body standards are not exceeded, and due to the fact that existing facilities have demonstrated an ability to comply with these limitations using present available technology.

2) pH

According to LAC 33:IX.3705.A.1., POTW's must treat to at least secondary levels. Therefore, in accordance with LAC 33:IX.5905.C., the pH shall not be less than 6.0 standard units nor greater than 9.0 standard units at any time.

Louisiana Department of Public Safety and Corrections
 Washington Correctional Institute Wastewater Treatment Facility
LA0060275; AI 18974; PER20060001
 Page 5

3) Solids and Foam

There shall be no discharge of floating solids or visible foam in other than trace amounts in accordance with LAC 33:IX.1113.B.7.

X. PREVIOUS PERMITS:

LPDES Permit No. LA0060275: Issued: September 1, 2001
 Expired: August 31, 2006

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>		<u>Monitoring Requirements</u>	
	<u>Daily Avg.</u>	<u>Daily Max.</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow	Report	Report	Continuous	Recorder
BOD ₅	10 mg/l	15 mg/l	2/month	Grab
TSS	15 mg/l	23 mg/l	2/month	Grab
Fecal Coliform Colonies	200	400	2/month	Grab
Total Residual Chlorine (TRC)	NO MEASURABLE		2/month	Grab

XI. ENFORCEMENT AND SURVEILLANCE ACTIONS:

A) Inspections

A review of the files indicates the following inspections were performed during the period beginning July 27, 2005 and ending July 27, 2007 for this facility.

Date: September 12, 2005

Inspector: LDEQ

Findings and/or Violations:

- A damage audit of this facility, due to Hurricane Katrina, indicated that the plant was operating and running on a generator until power was restored. There was no damage or flooding.

B) Compliance and/or Administrative Orders

A review of the files indicates that there are no enforcement actions administered against this facility.

C) DMR Review

A review of the discharge monitoring reports for the period beginning April 1, 2005 through March 31, 2007 has revealed the following violations:

<u>Month</u>	<u>Parameter</u>	<u>DMR Reported Value</u>	<u>Permit Limit</u>
April 2005	BOD ₅ , Monthly Avg.	13 mg/l	10 mg/l
July 2005	BOD ₅ , Monthly Avg.	11 mg/l	10 mg/l
September 2005	BOD ₅ , Monthly Loading	40 lbs/day	21 lbs/day
	BOD ₅ , Monthly Avg.	30 mg/l	10 mg/l
	BOD ₅ , Weekly Avg.	43 mg/l	15 mg/l
	TSS, Monthly Avg.	24 mg/l	15 mg/l
	TSS, Weekly Avg.	29 mg/l	23 mg/l
October 2005	BOD ₅ , Monthly Avg.	12 mg/l	10 mg/l
	BOD ₅ , Weekly Avg.	17 mg/l	15 mg/l

Louisiana Department of Public Safety and Corrections
 Washington Correctional Institute Wastewater Treatment Facility
 LA0060275; AI 18974; PER20060001
 Page 6

November 2005	BOD ₅ , Monthly Avg.	11 mg/l	10 mg/l
May 2006	BOD ₅ , Monthly Avg.	12 mg/l	10 mg/l
July 2006	No DMRs on file	No DMRs on file	No DMRs on file
August 2006	No DMRs on file	No DMRs on file	No DMRs on file
September 2006	No DMRs on file	No DMRs on file	No DMRs on file
October 2006	No DMRs on file	No DMRs on file	No DMRs on file
November 2006	No DMRs on file	No DMRs on file	No DMRs on file
December 2006	No DMRs on file	No DMRs on file	No DMRs on file
February 2007	BOD ₅ , Monthly Avg.	13 mg/l	10 mg/l
	BOD ₅ , Weekly Avg.	17 mg/l	15 mg/l
March 2007	BOD ₅ , Monthly Avg.	15 mg/l	10 mg/l
	BOD ₅ , Weekly Avg.	16 mg/l	15 mg/l

XII. ADDITIONAL INFORMATION:

The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon water quality studies. These studies may indicate the need for **advanced/more advanced** wastewater treatment. Studies of similar dischargers and receiving water bodies have resulted in monthly average effluent limitations of 5 mg/l CBOD₅, and 2 mg/l NH₃-N. Therefore, prior to upgrading or expanding this facility, the permittee should contact the Department to determine the status of the work being done to establish future effluent limitations and additional permit conditions.

Final effluent loadings (i.e. lbs/day) have been established based upon the permit limit concentrations and the design capacity of 0.250 MGD.

Effluent loadings are calculated using the following example:

$$\text{BOD}_5: 8.34 \text{ lb/gal} \times 0.250 \text{ MGD} \times 10 \text{ mg/l} = 21 \text{ lbs/day}$$

At present, the **Monitoring Requirements, Sample Types, and Frequency of Sampling** as shown in the permit are standard for facilities of flows between 0.10 and 0.50 MGD.

<u>Effluent Characteristics</u>	<u>Monitoring Requirements</u>	
	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow	Continuous	Recorder
BOD ₅	2/month	Grab
Total Suspended Solids	2/month	Grab
Fecal Coliform Bacteria	2/month	Grab
pH	2/month	Grab

Pretreatment Requirements

Based upon consultation with LDEQ pretreatment personnel, general pretreatment language will be used due to the lack of either an approved or required pretreatment program.

Pollution Prevention Requirements

The permittee shall institute or continue programs directed towards pollution prevention. The permittee shall institute or continue programs to improve the operating efficiency and extend the useful life of the facility. The permittee will complete an annual Environmental Audit Report **each year** for the life of this permit according to the schedule below. The permittee will accomplish this requirement by completing an

Louisiana Department of Public Safety and Corrections
Washington Correctional Institute Wastewater Treatment Facility
LA0060275; AI 18974; PER20060001
Page 7

Environmental Audit Form which has been attached to the permit. All other requirements of the Municipal Wastewater Pollution Prevention Program are contained in Part II of the permit.

The audit evaluation period is as follows:

Audit Period Begins	Audit Period Ends	Audit Report Completion Date
Effective Date of Permit	12 Months from Audit Period Beginning Date	3 Months from Audit Period Ending Date

XIII TENTATIVE DETERMINATION:

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to reissue a permit for the discharge described in this Statement of Basis.

XIV REFERENCES:

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 8, "Wasteload Allocations / Total Maximum Daily Loads and Effluent Limitations Policy," Louisiana Department of Environmental Quality, 2005.

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 5, "Water Quality Inventory Section 305(b) Report," Louisiana Department of Environmental Quality, 1998.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Chapter 11 - "Louisiana Surface Water Quality Standards," Louisiana Department of Environmental Quality, 2004.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Subpart 2 - "The LPDES Program," Louisiana Department of Environmental Quality, 2004.

Low-Flow Characteristics of Louisiana Streams, Water Resources Technical Report No. 22, United States Department of the Interior, Geological Survey, 1980.

Index to Surface Water Data in Louisiana, Water Resources Basic Records Report No. 17, United States Department of the Interior, Geological Survey, 1989.

LPDES Permit Application to Discharge Wastewater, Louisiana Department of Public Safety and Corrections, Washington Correctional Institute Wastewater Treatment Facility, February 21, 2006.